WHAT IS CLAIMED IS:

1. An amplifier circuit comprising:

a comparing and amplifying section that compares a target voltage and a reference voltage and amplifies a difference of the target voltage and the reference voltage; and

a phase compensator that compensates for a shift of input and output phases, the phase compensator including two resistors and a capacitor, the two resistors being serially connected between bases of two sub transistors that flow the same current as that in a differential transistor pair comprising two transistors, the capacitor having a terminal connected to an output terminal of the amplifier circuit, and the capacitor having a terminal connected via one of the two resistors to the base of one of the two sub transistors receiving an amplifier output voltage outputted from the output terminal.

2. The amplifier circuit as set forth in claim 1, wherein the phase compensator includes a phase advancing capacitor that compensates for an output phase delay.

3. The amplifier circuit as set forth in claim 2,

wherein the phase advancing capacitor is connected in parallel to the two resistors.

4. The amplifier circuit as set forth in claim 3, wherein the phase advancing capacitor is connected between the output terminal and the base of one of the two sub transistors on a side of the output terminal.

5. A power supply comprising:

an output transistor; and

an error amplifier that controls an output voltage according to a difference of a feedback voltage and a reference voltage, the feedback voltage being a feedback output voltage of the output transistor, the error amplifier including:

a comparing and amplifying section that compares a target voltage and a reference voltage and amplifies a difference of the target voltage and the reference voltage; and

a phase compensator that compensates for a shift of input and output phases, the phase compensator including two resistors and a capacitor, the two resistors being serially connected between bases of two sub transistors that flow the same current as that in a differential transistor pair comprising two transistors, the

capacitor having a terminal connected to an output terminal of the amplifier circuit, and the capacitor having a terminal connected via one of the two resistors to the base of one of the two sub transistors receiving an amplifier output voltage outputted from the output terminal.

6. The power supply as set forth in claim 5, wherein the phase compensator further includes a phase advancing capacitor that compensates for an output phase delay.

7. The power supply as set forth in claim 6, wherein the phase advancing capacitor is connected between a generating point of the output voltage and the base of one of the two sub transistors on a side of the output terminal.

8. The power supply as set forth in claim 7, wherein the phase advancing capacitor is a capacitor that decreases its capacitance with increase in applied voltage.

9. The power supply as set forth in claim 8, wherein the phase advancing capacitor is a chip-stacked ceramic capacitor incorporating a semiconductor junction.

10. The power supply as set forth in claim 6, wherein the phase advancing capacitor is connected between a generating point of the feedback voltage and the base of one of the two sub transistors on a side of the output terminal.

11. The power supply as set forth in claim 10, wherein the phase advancing capacitor is a capacitor that decreases its capacitance with increase in applied voltage.

12. The power supply as set forth in claim 11, wherein the phase advancing capacitor is a chip-stacked ceramic capacitor incorporating a semiconductor junction.

13. The power supply as set forth in claim 6, wherein the phase advancing capacitor is connected in parallel to the two resistors.

14. The power supply as set forth in claim 6, wherein the phase advancing capacitor is connected between the output terminal and the base of one of the two sub transistors on a side of the output terminal.